

Amended patent claims

1. A thermoplastic molding composition comprising components A,  
 B, C and D, and also, where appropriate, E, F, G and H, the  
 entirety of which gives 100% by weight:

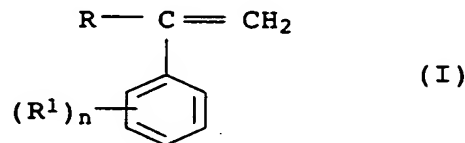
A) from 1 to 97.5% by weight of at least one aromatic  
 polycarbonate A,

B) from 1 to 97.5% by weight of at least one graft polymer B  
 made from

b1) from 40 to 80% by weight of a graft base made from an  
 elastomeric polymer B1 based on alkyl acrylates  
 having from 1 to 8 carbon atoms in the alkyl radical,  
 on ethylene-propylene, on dienes, or on siloxanes,  
 and having a glass transition temperature below 0°C,

b2) from 20 to 60% by weight of a graft B2 made from

b21) from 60 to 95% by weight of styrene or of substituted  
 styrenes B21 of the formula I



where R is C<sub>1-8</sub>-alkyl or hydrogen and R<sup>1</sup> is C<sub>1-8</sub>-alkyl  
 and n is 1, 2 or 3, or a mixture of these, and

b22) from 5 to 40% by weight of at least one unsaturated  
 nitrile B22,

C) from 1 to 97.5% by weight of at least one thermoplastic  
 copolymer C made from

c1) from 60 to 85% by weight of styrene or of substituted  
 styrenes C<sub>1</sub> of the formula I, or a mixture of these  
 compounds, and

c2) from 15 to 40% by weight of at least one unsaturated  
 nitrile C2,

D) from 0.5 to 50% by weight of at least one copolymer D, obtainable via reaction of

5 d1) from 5 to 95% by weight of at least one thermoplastic methacrylate polymer D1 containing at least one type of functional groups selected from epoxy, carboxy, hydroxy, anhydride and oxazoline, with

10 d2) from 5 to 95% by weight of at least one thermoplastic polyester D2,

E) from 0 to 40% by weight of at least one filler E,

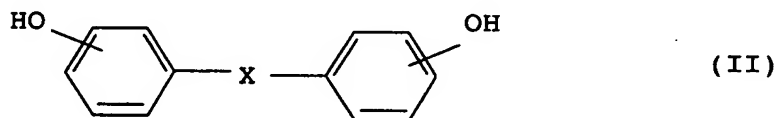
15 F) from 0 to 2% by weight of at least one organic acid F,

G) from 0 to 25% by weight of at least one halogen-free phosphorus compound G,

20 H) from 0 to 45% by weight of other additives H.

2. A molding composition as claimed in claim 1, where the polycarbonates A are based on biphenols of the formula II

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where X is a single bond, C<sub>1-3</sub>-alkylene, C<sub>2-3</sub>-alkylidene, C<sub>3-6</sub>-cycloalkylidene, or else -S- or -SO<sub>2</sub>-.

35 3. A molding composition as claimed in claim 1 or 2, where the graft base B1 of the graft copolymer B is composed of

b11) from 70 to 99.9% by weight of at least one alkyl acrylate B11 having from 1 to 8 carbon atoms in the alkyl radical,

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b12) from 0 to 30% by weight of another copolymerizable monoethylenically unsaturated monomer B12, or a mixture of these,

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b13) from 0.1 to 5% by weight of a copolymerizable, polyfunctional crosslinking monomer B13,

where the entirety of B11, B12 and B13 gives 100% by weight.

4. A molding composition as claimed in any of claims 1 to 3,  
where the copolymer C is composed of from 70 to 83% by weight  
5 of styrene and from 17 to 30% by weight of acrylonitrile.
5. A molding composition as claimed in any of claims 1 to 4,  
where the methacrylate polymer D1 is composed of  
10 d11) from 80 to 99.9% by weight of methyl methacrylate D11,  
d12) from 0 to 19.9% by weight of at least one other acrylate  
or methacrylate D12, and  
15 d13) from 0.1 to 10% by weight of at least one monomer D13,  
containing at least one type of functional groups  
selected from epoxy, carboxy, hydroxy, anhydride and  
oxazoline,  
20 where the entirety of D11, D12 and D13 gives 100% by weight.
6. A molding composition as claimed in any of claims 1 to 5,  
where the monomer D13 used comprises glycidyl methacrylate,  
allyl glycidyl ether, isopropenyl glycidyl ether, or a  
25 mixture of these.
7. A molding composition as claimed in any of claims 1 to 6,  
where the copolymer D is obtainable via melt compounding of  
the methacrylate polymers D1 with the polyester D2.  
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8. A molding composition as claimed in any of claims 1 to 7,  
where the filler D has been selected from the group  
consisting of particulate mineral fillers, fibrous fillers,  
and mixtures of these.  
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9. A process for preparing molding compositions as claimed in  
any of claims 1 to 7, by mixing the dry components A to D  
and, where appropriate, E to H at from 200 to 320°C.
- 40 10. The use of molding compositions as claimed in any of claims 1  
to 7 for producing moldings, fibers or films.
11. The use as claimed in claim 10 for producing bodywork parts.
- 45 12. A molding, a fiber, or a film, made from a molding  
composition as claimed in any of claims 1 to 8.

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13. A molding as claimed in claim 12 in the form of a bodywork part.

14. The use of copolymers D as defined in claim 1 as compatibilizer in molding compositions in which polycarbonates, graft polymers, and styrene copolymers are present.

15. A copolymer D, obtainable via reaction of

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d1) from 5 to 95% by weight of at least one thermoplastic methacrylate polymer D1 composed of

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d11) from 80 to 99.9% by weight, preferably from 85 to 99.3% by weight, and in particular from 90 to 98.9% by weight, of MMA (component D11),

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d12) from 0 to 19.9% by weight, preferably from 0.5 to 14.8% by weight, and in particular from 0.6 to 9.5% by weight, of at least one other acrylate or methacrylate D12, and

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d13) from 0.1 to 20% by weight, preferably from 0.2 to 15% by weight, and in particular from 0.5 to 10% by weight, of at least one monomer D13 containing at least one type of functional groups selected from epoxy, carboxy, hydroxy, anhydride, and oxazoline,

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where the entirety of d11), d12), and d13) gives 100% by weight, with

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d2) from 5 to 95% of at least one thermoplastic polyester D2, selected from polyethylene terephthalate and polybutylene terephthalate, or a mixture of these.

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Polycarbonate/styrene copolymer blends with improved properties

Abstract

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Thermoplastic molding compositions comprising the components A, B, C and D and, if appropriate, E, F, G and H,

- 10 A) from 1 to 97.5% by weight of at least one aromatic polycarbonate A,
- B) from 1 to 97.5% by weight of at least one graft polymer B made from
- 15 b1) from 40 to 80% by weight of a graft base made from an elastomeric polymer B1,
- b2) from 20 to 60% by weight of a graft B2 made from
- 20 b21) from 60 to 95% by weight of styrene or of substituted styrenes B21 and
- b22) from 5 to 40% by weight of at least one unsaturated nitrile B22,
- 25 C) from 1 to 97.5% by weight of at least one thermoplastic copolymer C made from
- c1) from 60 to 85% by weight of styrene or of substituted
- 30 styrenes C1 or mixtures thereof and
- C2) from 15 to 40% by weight of at least one unsaturated nitrile C2,
- 35 D) from 0.5 to 50% by weight of at least one copolymer D, obtainable via reaction of
- d1) from 5 to 95% by weight of at least one thermoplastic methacrylate polymer D1 containing at least one type of
- 40 functional groups selected from epoxy, carboxy, hydroxy, anhydride and oxazoline, with
- d2) from 5 to 95% by weight of at least one thermoplastic polyester D2,
- 45 E) from 0 to 40% by weight of at least one filler E,

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F) from 0 to 2% by weight of at least one organic acid F,

G) from 0 to 25% by weight of at least one halogen-free  
phosphorus compound G,

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H) from 0 to 45% by weight of other additives H.

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